

APPENDIX C

Prior art memory systems have attempted to solve the problem of high speed access to memory with limited success. U.S. Patent No. 3,821,715 (Hoff et. al.), was issued to Intel Corporation for the earliest 4-bit [~~micro-processor~~] microprocessor. That patent describes a bus connecting a single central processing unit (CPU) with multiple RAMs and ROMs. That bus multiplexes addresses and data over a 4-bit wide bus and uses point-to-point control signals to select particular RAMs or ROMs. The access time is fixed and only a single processing element is permitted. There is no block-mode type of operation, and most important, not all of the interface signals between the devices are bused (the ROM and RAM control lines and the RAM select lines are point-to-point).